Department of Chemical Engineering
College of Engineering
Imam Mohammad Ibn Saud Islamic University
Riyadh, Kingdom of Saudi Arabia

Chemical Engineering Program 144510 [Required Credits = 211]

University Courses	Math. & Basic Sciences	Engineering Fundamentals	Engineering Depths
26 Credits	56 Credits	23 Credits	106 Credits

FIRST YEAR (FRESHMAN)

FALL(1)

- **UNI 1000** [2] Univ Elective 1
- **MATH 1122** [5] Pre-Calculus
- **ENGL 1120** [4] Technical Writing in English
- **GE 1103** [4] Engineering Graphics and Design

WINTER(2)

- **MATH 1115** [5] Calculus I — CO: MATH 1122 Or MATH 122
- **PHYS 1117** [4] Physics I
- **PHYS 1119** [1] Physics I Lab — PRE: PHYS 1117 Or PHYS 117
- **CHEM 1104** [4] General Chemistry
- **CHEM 1105** [1] General Chemistry Lab — CO: CHEM 1104 Or CHEM 104

SPRING(3)

- **UNI 1001** [2] Univ Elective 2
- **CS 1108** [4] Computer Programming — CO: MATH1115 Or MATH105
- **MATH 1116** [5] Calculus II — PRE: MATH 1115 Or MATH 115
- **PHYS 1118** [4] Physics II — PRE: PHYS1117, PHYS1119 or PHYS 117, PHYS 119
- **PHYS 1120** [1] Physics II Lab — PRE: PHYS 1117, PHYS 1119 Or PHYS 117, PHYS 119 Or PHYS 1118, PHYS 118

SECOND YEAR (SOPHOMORE)

FALL(4)

- **STAT 1215** [4] Probability and Statistics for Engineers — PRE: MATH 1115 Or MATH 115
- **GE 1201** [5] Statics — PRE: MATH 1116, PHYS 1117
- **ChE 1211** [5] Principles of ChEm. Eng. I — PRE: CHEM 1104, MATH 1115
- **ChE 1241** [4] Material Sci. and Eng. — PRE: CHEM 1104

WINTER(5)

- **UNI 1002** [2] Univ Elective 3
- **MATH 1207** [5] Calculus III — PRE: MATH 1116 Or MATH 116
- **MATH 1228** [4] Linear Algebra & Ordinary Differential Equations — PRE: MATH 1116 OR: MATH 116
- **ChE 1212** [4] Principles of ChEm. Eng. II — PRE: ChE 1211, MATH 1116

SPRING(6)

- **UNI 1003** [2] Univ Elective 4
- **MATH 1236** [4] Mathematical Methods for Engineers — PRE: MATH 1207, MATH 1228 Or: MATH 207, MATH 228
- **ChE 1222** [4] Fluid Mechanics — PRE: MATH 1207, ChE 1211, GE 1201
- **ChE 1221** [4] ChEm. Eng. Thermodynamics I — PRE: ChE 1211

THIRD YEAR (JUNIOR)

FALL(7)

- **UNI 1004** [2] Univ Elective 5
- **MATH 1346** [4] Numerical Analysis — PRE: MATH 1236, CS 1108 Or MATH 236, CS 108
- **ChE 1321** [4] Chem. Eng. Thermodynamics II — PRE: ChE 1212, ChE 1221, MATH 1236
- **ChE 1322** [4] Heat Transfer I — PRE: ChE 1222, MATH 1207

WINTER(8)

- **UNI 1005** [2] Univ Elective 6
- **CHEM 1301** [4] Organic Chemistry — PRE: CHEM 1104
- **CHEM 1302** [1] Organic Chemistry Lab — CO: CHEM 1301
- **ChE 1323** [4] Heat Transfer II — PRE: ChE 1322, GE 1103
- **ChE 1326** [4] Mass Transfer — PRE: ChE 1322

SPRING(9)

- **ChE 1325** [5] Unit Operations — PRE: ChE 1326
- **ChE 1311** [4] Chemical Reaction Eng. — PRE: ChE 1321, MATH 1346
- **ChE 1328** [5] Separation Processes — PRE: ChE 1326
- **ChE 1327** [2] Fluid Mechanics & Heat Transfer Lab — CO: ChE 1323

FOURTH YEAR (SENIOR)

FALL(10)

- **UNI 1006** [2] Univ Elective 7
- **GE 1403** [4] Engineering Economy — PRE: MATH 1236
- **CHE 1481** [4] BioChEmical Eng. — PRE: ChE1311
- **ChE 1431** [4] Process Control — PRE: MATH 1236, ChE 1311 ChE 1328
- **ChE 1421** [2] Unit Operations & Sep. Processes Lab — PRE: ChE 1325, ChE 1328

WINTER(11)

- **UNI 1007** [2] Univ Elective 8
- **ChE 1461** [5] Chemical Processes and Plant Design — PRE: ChE 1325, ChE 1328, ChE 1241
- **ChE 1462** [4] Process Synthesis & Modeling — PRE:ChE 1328, GE 1403
- **ChE 1463** [4] Environmental & Safety Management — PR: ChE 1461
- **ChE 1432** [2] Reaction Eng. & Process Control Lab — PRE: ChE 1311, ChE 1431

SPRING(12)

- **FRC 1001** [2] Free Elective 1
- **GE 1402** [2] Professional Ethics for Engineers
- **ChE 1454** [4] Petroleum Refining — PRE: ChE1328, CHEM1301
- **ChE 1451** [4] Petrochemicals — PRE: ChE1328, CHEM1301
- **ChE 1493** [2] Graduation Project I — PR: ChE1461

FIFTH YEAR

FALL(13)

- **FRC 1002** [2] Free Elective 2
- **UNI 1008** [2] Univ Elective 9
- **ChE 15**** [4] Elective I — PRE: ChE 1325, ChE 1328
- **ChE 15**** [4] Elective II — PRE: ChE 1325, ChE 1328
- **ChE 1594** [3] Graduation Project II — PRE: ChE1493

WINTER(14)

- **UNI 1009** [2] Univ Electiv. 10
- **FRC 1003** [2] Free Elective 3
- **ChE 15**** [4] Elective III — PRE: ChE 1325, ChE 1328
- **ChE 1595** [3] Graduation Project III — PRE: ChE1594

GE 1599 Engineering Training [0]

No. of Courses / Credits each Trimester:

[4/ 15]	[5 / 15]	[5 / 16]	[4 / 18]	[4 / 15]	[4 / 14]	[4 / 14]	[5 / 15]	[4 / 16]	[5 / 16]	[5 / 17]	[5 / 16]	[3 / 15]	[4 / 11]